

What is claimed is:

1. A plasma display device comprising:
 - a first substrate;
 - 5 a second substrate disposed facing an inside of said first substrate and forming a hermetically sealed discharge space therebetween;
 - 10 at least a pair of discharge sustain electrodes formed inside said first substrate and mutually forming a discharge gap; and
 - 15 a dielectric layer formed inside said first substrate so as to cover said discharge sustain electrodes; wherein said dielectric layer has a low degassing film in which a total amount of degassing when increasing a temperature from room temperature to 1000 °C comprises hydrogen molecules not exceeding 1×10^{20} particles/cm³ and water molecules not exceeding 5×10^{20} particles/cm³.
2. The plasma display device according to Claim 1 wherein 20 a thickness of said dielectric layer does not exceed 5.0×10^{-5} m.
3. The plasma display device according to any of Claims 1 and 2, wherein on said second substrate side there is formed a plurality of address electrodes along a direction which crosses 25 with said discharge sustain electrodes; and there is formed a second substrate side dielectric layer.
4. The plasma display device according to Claim 3, wherein said second substrate side dielectric layer has a low degassing film in which a total amount of degassing when increasing a temperature from room temperature to 1000 °C comprises 30

hydrogen molecules not exceeding 1×10^{20} particles/cm³ and water molecules not exceeding 5×10^{20} particles/cm³.

5. The plasma display device according to any of Claims 1 to
5, wherein said low degassing film has a low degassing film in
which a total amount of degassing when increasing a
temperature from room temperature to 500 °C comprises
hydrogen molecules not exceeding 5×10^{19} particles/cm³ and
water molecules not exceeding 5×10^{19} particles/cm³.

10

6. The plasma display device according to any of Claims 1 to
5, wherein said low degassing film comprises one of an oxide, a
nitride and an oxynitride.

15

7. The plasma display device according to any of Claims 1 to
6, wherein there is formed a protective film on an internal
surface facing a discharge space of said dielectric layer.

20

8. A plasma display device manufacturing method for
manufacturing a plasma display device according to any of
Claims 1 to 7, wherein said low degassing film is formed by one
of a chemical vapor deposition method, a sputtering method, an
evaporation method, an ion plating method, a printing method,
a dry film method, an application method and a transfer
25 method.

25

9. The plasma display device manufacturing method
according to Claim 8, wherein said low degassing film has a
substrate temperature of 30 °C or more, when formed by the
30 chemical vapor deposition method.

10. The plasma display device manufacturing method according to Claim 8, wherein said low degassing film has a partial pressure of oxygen of 15 volume percent or more, when formed by the sputtering method.